

**UNITED STATES DISTRICT COURT
WESTERN DISTRICT OF TEXAS
AUSTIN DIVISION**

THROUGHPUTER, INC.,

Plaintiff,

v.

AMAZON WEB SERVICES, INC.,

Defendant.

Case No. 1:22-CV-01095-DAE

JURY TRIAL DEMANDED

PLAINTIFF'S OPPOSITION TO DEFENDANT'S MOTION TO DISMISS

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I. INTRODUCTION

ThroughPuter's First Amended Complaint (Dkt. 48) accuses AWS of infringing U.S. Patent Nos. 11,347,556, 11,385,934, and 11,500,682 (collectively, the "Patents-in-Suit"). ThroughPuter alleges that the Patents-in-Suit include claims that are substantially identical to claims of U.S. Patent Nos. 10,282,330, 10,223,317, and 10,705,995, respectively, which are owned by Amazon (the "Amazon Patents"). Despite the picture AWS's Motion attempts to paint, ThroughPuter's Patents-in-Suit claim a priority date that is *three years earlier than the earliest priority date* of the Amazon Patents. Thus, ThroughPuter conceived of and constructively reduced to practice the Patents-in-Suit three years prior to the Amazon Patents. In other words, ThroughPuter disclosed its claimed inventions to the world years before the applications that resulted in the Amazon Patents were filed. As a result, ThroughPuter's Patents-in-Suit came first and are prior art to the Amazon Patents. Any contrary picture painted by AWS is simply not true.

In its Motion, AWS admits that the scope of the claims of the Patents-in-Suit and the scope of the claims of the Amazon Patents are substantively the same and that any differences in claim language between the Patents-in-Suit and the Amazon Patents are merely "superficial." This admission creates a problem for AWS: because it appears that AWS is practicing the claims of the Amazon Patents, it is also practicing (*i.e.*, infringing) the Patents-in-Suit given the substantial identity between the claims of the Patents-in-Suit and the claims of the Amazon Patents.

The admitted substantial identity between the claims of the Patents-in-Suit and the Amazon Patents creates another problem for AWS: if AWS were to argue that the claims of the Patents-in-Suit are invalid under 35 U.S.C. §§ 102 and/or 103, AWS would, in essence, be arguing that the Amazon Patents are similarly invalid. Similarly, if AWS were to argue that the Patents-in-Suit claim patent ineligible subject matter in contravention of 35 U.S.C. § 101, AWS would, in essence, be arguing that the Amazon Patents suffer from a similar flaw.

In light of the problems created by the substantial identity between the claims in the Patents-in-Suit and the Amazon Patents, AWS is left to accuse ThroughPuter of wrongdoing while arguing that AWS invented the subject matter of the Patents-in-Suit. But that story makes no sense. The claims of ThroughPuter's Patents-in-Suit are fully supported at least by (i.e., described in) a patent application ThroughPuter filed in 2014—four years before the earliest of the Amazon Patents was published to the public. ThroughPuter could not have stolen its inventions from AWS when ThroughPuter disclosed the claimed inventions four years before the disclosure of the Amazon Patents was made public.

Despite AWS's invocation of incendiary accusations of misconduct, the reality is that ThroughPuter followed well-established, typical, and accepted practices in obtaining the Patents-in-Suit. AWS's suggestion to the contrary finds no basis in law or fact. Indeed, as discussed *infra*, the Federal Circuit has expressly condoned the practice of using continuation applications to target competitive products as the market develops, which is precisely what ThroughPuter did in obtaining the Patents-in-Suit.¹

At bottom, AWS's Motion argues that the claims of the Patents-in-Suit find no basis in the specification of the Patents-in-Suit. As an initial matter, the Patent Office disagreed when it examined the Patents-in-Suit for that very issue, determined that the claims do have written description support, and issued the Patents-in-Suit. And in any event, AWS's argument is really one that the Patents-in-Suit lack written description support under 35 U.S.C. § 112(a). Whether a patent includes written description support is a question of fact, which is not resolvable on a motion

¹ AWS's first motion to dismiss resorted to accusing ThroughPuter of violating a Patent Office regulation that did not even apply to ThroughPuter's prosecution. Following the R & R's finding that 37 C.F.R. § 41.202(a) "is inapplicable in this case," AWS removed its reliance on the regulation. *See* Dkt. 43 at 14. Nonetheless, AWS maintained its argument that had originally been premised on an "inapplicable regulation."

to dismiss.

Cognizant of that fact, AWS attempts to recast its written description argument as a lack of inventorship argument under 35 U.S.C. § 101. Tellingly, AWS does not cite a *single* case where any court anywhere found a lack of inventorship under § 101 as a basis for dismissal. The utter lack of support in AWS's Motion is telling: § 101 addresses patent eligibility, not inventorship. And even if § 101 did address inventorship, that factually intensive question is not resolvable at the motion to dismiss stage.

The Court should deny AWS's Motion in its entirety. Indeed, Magistrate Judge Howell already rejected AWS's arguments in a Report and Recommendation dated July 24, 2023 (Dkt. 43) (the "R & R"). AWS makes a single passing reference to the R & R in footnote 11 and makes no effort at all to identify any error in the R & R's rejection of AWS's claims. While the R & R was not adopted because ThroughPuter amended its Complaint, all of the reasons supporting the recommended denial of AWS's first motion apply equally here to the failed arguments AWS rehashes in its motion to dismiss. The Court should deny AWS's motion including for the same reasons identified in the R & R.

II. FACTUAL BACKGROUND

Plaintiff ThroughPuter is a technology start up founded and run by Mark Sandstrom, the named inventor of the Patents-in-Suit. Dkt. 48, ¶6. ThroughPuter is actively developing products that rely on the architecture disclosed in the Patents-in-Suit. *Id.*, ¶¶8-11. To protect its inventions, ThroughPuter sought patent protection and has obtained an international patent portfolio of over 50 patents, each naming Mr. Sandstrom as an inventor. *Id.*, ¶6. The Patents-in-Suit comprise three of those issued patents.

The Patents-in-Suit claim priority to two provisional applications, the first of which ThroughPuter filed in August 2013—*five years before* the disclosure of the Amazon Patents

published to the public.² The Patents-in-Suit also claim priority to a non-provisional application filed June 2014—*four years before* the disclosure of the Amazon Patents published to the public. That non-provisional application includes the same specification as the Patents-in-Suit. While AWS acknowledges, in passing, that ThroughPuter’s 2014 application predates the filing date of the Amazon Patents by several years, AWS fails to state the key implication of this undisputed fact: ThroughPuter was the first to invent, and, accordingly, ThroughPuter’s patents are prior art to the Amazon Patents. That is, ThroughPuter conceived of, and constructively reduced to practice, its claimed inventions some *four years before* the Amazon Patents published. ThroughPuter’s earlier patent applications fully support the claims ThroughPuter asserts here, demonstrating that ThroughPuter did in fact invent what is claimed.

Despite these undisputed facts, AWS attempts to give the false impression that ThroughPuter somehow copied Amazon’s inventions. The lynchpin of this argument is that, while the Amazon Patents are focused on an FPGA-enabled cloud computing system with security features, the ThroughPuter Patents-in-Suit have nothing to do with such a system. But that assertion is simply false. As explained below, ThroughPuter’s 2013 and 2014 filings clearly disclose an FPGA-enabled cloud computing system that includes numerous benefits, including security benefits. As such, it was entirely appropriate and within ThroughPuter’s rights to obtain the claims of the Patents-in-Suit. Indeed, as explained below, ThroughPuter followed all applicable Patent Office procedures and AWS’s suggestions to the contrary are baseless.

A. In 2014, ThroughPuter filed a patent application disclosing an FPGA-enabled reconfigurable logic platform that would provide enhanced security, among other benefits.

AWS focuses its argument on U.S. Application No. 14/318,512 (the “2014 Application”),

² While Amazon filed its first patent application that led to the issuance of the Amazon Patents in 2016, the contents of that application did not publish to the public until 2018.

which ThroughPuter filed in June 2014—four years before the Amazon Patents published. As AWS acknowledges, that application issued as U.S. Patent No. 9,448,847 on September 20, 2016—*i.e.*, before the earliest application of the Amazon Patents. According to AWS (at 3), the Amazon Patents “address security issues that arise when FPGAs are offered as part of a cloud computing service.”³ At the same time, AWS argues (at 17) that ThroughPuter’s patents, including the 2014 Application, are directed “to a completely different technology.” That assertion is flatly belied by the disclosure of ThroughPuter’s 2014 Application, which discloses FPGAs offered as part of a cloud computing system. A brief review of ThroughPuter’s 2014 Application follows.

ThroughPuter’s 2014 Application starts by identifying a prior art problem in then-conventional cloud computing systems that embodiments of ThroughPuter’s disclosed inventions would solve, noting “significant challenges to the scalability of the networked utility (*‘cloud’*) computing model.” Dkt. 49-10, Motion Ex. I at 10, ¶003.⁴ ThroughPuter’s 2014 Application continues: “To address the challenges per above, there is a need for inventions enabling scalable, multi-application dynamic concurrent execution on parallel processing systems, with high resource utilization efficiency, high application processing on-time throughput performance, as well [as] built-in, architecture based *security* and reliability.” *Id.* at ¶004. These same disclosures appear in the Patents-in-Suit. Dkt. 48-1, First Amended Complaint Ex. 1 at 2:9-24; First Amended Complaint Ex. 2 at 2:10-26; First Amended Complaint Ex. 3 at 2:13-28.

ThroughPuter’s 2014 Application then explains that “aspects of the invention involve application-program instance specific hardware logic resources for *secure* and reliable ITC [inter-

³ Because AWS addresses its argument to security in an FPGA-based cloud computing system, ThroughPuter addresses this issue herein without conceding that such a focus is appropriate or ultimately relevant to the issues of infringement or validity in this case.

⁴ All emphasis herein is added unless otherwise indicated.

task communication] among tasks of application program instances hosted at processing stages of a multi-stage parallel processing system.” Dkt. 49-10, Motion Ex. I at 13, ¶0010. A cloud computing system is an example of a parallel-processing system. Alciati Decl., Ex. 1, 2014 Application, Appendix A at 2.⁵ Thus, ThroughPuter’s 2014 Application does disclose and discuss enhanced security features as part of the disclosed cloud computing system. AWS’s contrary suggestion is inconsistent with the record.

ThroughPuter’s earlier 2014 Application also discloses an embodiment, which uses “programmable logic (FPGA) implementation” in which “the core type for any core slot 520 is furthermore reconfigurable per expressed demands of its assigned app-task, e.g. per [1], Appendix A, Ch. 5.5.” Dkt. 49-10, Motion Ex. I at 36, ¶0069. The 2014 Application’s reference to “Appendix A, Ch. 5.5” refers to a 2014 provisional application, which is incorporated by reference into ThroughPuter’s 2014 Application as well as the disclosure of the Patents-in-Suit. *Id.* at 9, [1]; Dkt. 48-1, First Amended Complaint Ex. 1 at 1:21-22; First Amended Complaint Ex. 2 at 1:22-23; First Amended Complaint Ex. 2 at 20:17-18. That Appendix includes a detailed 51-page description of a functional cloud computing system designed by the named inventor on the Patents-in-Suit, including a detailed discussion of the use of FPGAs in a configurable logic platform.⁶ *See* Alciati Decl., Ex. 1 at, e.g., 39-43.

ThroughPuter’s 2014 Application also expressly incorporates another ThroughPuter patent application 13/717,649, which issued as U.S. Patent No. 8,745,626 (the “ ’626 patent). Dkt. 49-

⁵ ThroughPuter agrees with AWS that the Court can consider Patent Office filings that comprise the intrinsic record of the Patents-in-Suit in connection with AWS’s Motion. *See* Dkt. 49 at 5, n. 4.

⁶ For avoidance of doubt, no position taken herein is intended to reflect the arguments ThroughPuter would intend to make in the event AWS maintains its challenge to whether the claims of the Patents-in-Suit comply with 35 U.S.C. § 112(a) later in this proceeding.

10 at 9, [9]; Alciati Decl., Ex. 7, '626 patent. The '626 patent issued from an application ThroughPuter filed on December 17, 2012—six years before the disclosure of the Amazon Patents became public. Because the '626 patent is incorporated into ThroughPuter's 2014 Application, the law treats the '626 patent disclosure as if it were expressly stated in ThroughPuter's 2014 Application. *See, e.g., Paice LLC v. Ford Motor Co.*, 881 F.3d 894, 906 (Fed. Cir. 2018) (“Incorporation by reference provides ‘a method for integrating material from various documents into a host document[] . . . by citing such material in a manner that makes clear that the material is effectively part of the host document as if it were explicitly contained therein.’”). The '626 patent is titled “Scheduling Application Instances To **Configurable** Processing Cores Based On Application Requirements And Resource Specification.” Alciati Decl., Ex 7 at 1. Contrary to the picture AWS attempts to paint, Mr. Sandstrom was not only well-versed in configurable logic technology before the Amazon Patents published—he was awarded a patent on aspects of such technology four years prior.

Like the Amazon Patents, ThroughPuter's '626 patent discloses a “configuration access port”—the key difference being ThroughPuter disclosed this six years before the Amazon Patents published. *Compare Id.* at 11:8-63 *with, e.g.,* Amazon's '330 patent, Dkt. 48-1, First Amended Complaint Ex. 5 at 10:55-59 (referring to configuration port 211). ThroughPuter's '626 patent explains that “[t]he configuration access port **430** interacts **431** with the memory **410** to retrieve **415** the demanded configuration file for such target core slot.” Alciati Decl., Ex. 7 at 11:33-35. The '626 patent further provides that “the interface logic **420** provides any necessary control **423**” with “such control **423** provided during the reconfiguration of a given core slot [to] prevent[] unintended interactions between that core slot and the rest of the system **100**” *Id.* at 50-58.

Six years later, the published disclosure of the Amazon Patents provided that

“configuration data corresponding to the application logic can be sent from the server computer **220** to the management function **252**,” which function “can route the configuration data corresponding to the application logic through the host fabric **260** to the configuration port **211** so that the application logic can be loaded.” Dkt. 48-1, First Amended Complaint Ex. 5 at 10:60-11:2. Contrary to AWS’s arguments, the 2014 Application is not directed “to a completely different technology” as compared to the Amazon Patents. Instead, both ThroughPuter’s patents and Amazon’s Patents disclose FPGA based cloud computing systems including a configuration port providing restricted access with ThroughPuter’s patents being prior art to the Amazon Patents.

Despite ThroughPuter’s clear and detailed description of the use of FPGAs in a cloud computing system, AWS claims (at 6) that ThroughPuter mentions FPGAs only as part of a “laundry list” of computer processors that could be used in connection with the disclosed cloud computing system. This is a misrepresentation of ThroughPuter’s patent filings, which simply cannot be squared with the disclosure of ThroughPuter’s Patents-in-Suit. As explained above, ThroughPuter’s patent filings disclose substantial detail concerning the use of FPGAs in a cloud computing system. Nonetheless, AWS implies that ThroughPuter’s named inventor, Mark Sandstrom, knew very little about the use of FPGAs in a cloud computing system despite claiming them in the Patents-in-Suit. That, too, is incorrect.

Quite to the contrary, Mr. Sandstrom is so knowledgeable concerning FPGAs that he was asked to present at the FPGAworld Conference in Stockholm, Sweden in September 2014. Dkt. 48, ¶40. At that conference, he presented a paper he had published titled: “Hardware Implemented Scheduler, Placer, Inter-Task Communications and IO System Functions for Manycore Processors Dynamically Shared Among Multiple Applications.” *Id.* That paper is attached to the First Amended Complaint as Exhibit 12 and confirms the named inventor’s extensive knowledge

concerning cloud computing and the security aspects of a cloud computing system, among other topics.

Mr. Sandstrom was also invited to present at other conferences including GigaOm in 2012 where ThroughPuter was selected as one of eleven finalists to present. Dkt. 48, ¶38. As another recognition of Mr. Sandstrom's skill in the art of cloud computing, Mr. Sandstrom published an article in the Cloud Computing Journal. *Id.*, ¶39. A copy of that article is attached to the First Amended Complaint as Exhibit 11. Then, in 2015, ThroughPuter was invited to present at the HPC [High Performance Computing] Advisory Council Conference in Spain. *Id.*, ¶42. A copy of that presentation is attached to the Complaint as Exhibit 13. All of the foregoing occurred *before* Amazon filed the 2016 application that led to the Amazon Patents. In brief, AWS's suggestion that ThroughPuter and its named inventor had little knowledge concerning FPGAs and cloud computing is entirely misplaced.

B. ThroughPuter followed Patent Office procedure in filing the applications that matured into the Patents-in-Suit as confirmed by the Patent Office during examination.

Unhappy with the fact that ThroughPuter's 2014 Application disclosed an FPGA-enabled cloud computing system that supports the claims of the Patents-in-Suit, AWS resorts to accusing ThroughPuter of wrong-doing in prosecuting the Patents-in-Suit. As explained *infra*, AWS's argument is not properly raised at the motion to dismiss stage. Nonetheless, ThroughPuter responds here to correct the record and to demonstrate that ThroughPuter complied with all relevant Patent Office rules and procedures in prosecuting the Patents-in-Suit.

Starting with the Abstract, AWS suggests (at 5-8) that there was something improper about ThroughPuter revising the Abstracts of the '556 and '934 patents. First of all, ThroughPuter clearly identified the changes it made to the Abstract using strikethrough as AWS's Motion clearly shows (at 8), and the examiner reviewed the Abstract to ensure it complied with application Patent

Office requirements. *See* Alciati Decl., Ex. 2, MPEP § 608.01(b)(I)(D) at page 600-138 (“review of the abstract for compliance with [USPTO] guidelines is the responsibility of the examiner.”). Moreover, ThroughPuter’s changes to the Abstract were fully supported by the disclosure of ThroughPuter’s patents. For example, the Abstracts refer to a “configurable logic platform” including a “configuration port,” which, as explained *supra*, is described in detail in ThroughPuter’s 2014 Application through its incorporation of ThroughPuter’s 2012 application, which matured into the ’626 patent. Because ThroughPuter’s changes to the Abstracts were fully supported by the original disclosure of the 2014 Application, they are not “new matter.” *See Schering Corp. v. Amgen, Inc.*, 222 F.3d 1347, 1353 (Fed. Cir. 2000) (“The fundamental inquiry is whether the material added by amendment was inherently contained in the original application.”). Instead, the ’556 and ’934 patent Abstracts provide “a concise statement of the technical disclosure of the patent and should include that which is new in the art to which the invention pertains.” Alciati Decl., Ex. 2 MPEP § 608.01(b)(I)(B) at page 600-138.

AWS’s next complaint (at 7) is that ThroughPuter revised the title of the Patents-in-Suit during prosecution. As with the Abstract, ThroughPuter’s title changes were fully supported by the disclosure of ThroughPuter’s 2014 Application. Each of the Patents-in-Suit is titled “Configurable Logic Platform With Reconfigurable Processing Circuitry.” By the time ThroughPuter filed its 2014 Application, ThroughPuter had already been awarded the ’626 patent, which is titled “Scheduling Application Instances To **Configurable** Processing Cores Based On Application Requirements And Resource Specification.” Similarly, the express text of ThroughPuter’s 2014 Application states that “in programmable logic (FPGA) implementation, the core type for any core slot 520 is furthermore **reconfigurable** per expressed demands of its assigned app-task, e.g., per [1], Appendix A, Ch 5.5.” Dkt. 49-10, Motion Ex. I at 36, ¶0069. Thus,

the titles of ThroughPuter’s Patents-in-Suit did not represent “new matter.” Instead, consistent with Patent Office requirements, the titles represent a “brief but technically accurate and descriptive” title for the Patents-in-Suit. Alciati Decl., Ex. 2 at page 600-119. Indeed, “[w]here the title is not descriptive of the invention *claimed*, the examiner should require the substitution of a new title that is clearly indicative of the invention to which the *claims* are directed.” *Id.* Here, the examiner did not require substitution of a new title because it was indicative of the claimed invention. That ThroughPuter owns other patents, which do not reference “configurable logic” in their title is entirely sensible because the title focuses on the claims.

While AWS accuses ThroughPuter of misrepresenting facts to the Patent Office, it is AWS that misrepresents what constitutes “new matter” in a patent application. “The fundamental inquiry is whether the material added by amendment was inherently contained in the original application.” *Schering*, 222 F.3d at 1353. The Federal Circuit has explained that “the new matter prohibition is closely related to the adequate disclosure requirements of 35 U.S.C. § 112.” *Id.* As explained *infra*, that factual question is not resolvable on a motion to dismiss. Moreover, the import of new matter does not relate to “inventorship” as AWS seems to argue. Instead, it goes to the question of whether an application is entitled to the earlier filing date of the application to which it claims priority. *See Applied Materials, Inc. v. Advanced Semiconductor Materials America, Inc.*, 98 F.3d 1563, 1579-80 (Fed. Cir. 1996).

Contrary to AWS’s argument, “new” matter does not mean “new” in the sense of something that appears that was not there before—a fact of which AWS is well aware notwithstanding its present arguments in this Court. Otherwise, all continuation applications would include “new” matter because such continuation applications always include claims that were not in the original application to which they claim priority. Instead, whether matter is “new”

is judged against the disclosure of the prior application. *Schering*, 222 F.3d at 1353. And here, the Examiner determined that ThroughPuter’s patent applications, which matured into the Patents-in-Suit did not include new matter by not issuing a new matter rejection. *See* Alciati Decl., Ex. 3 at page 200-72 (where a continuation application includes new matter, the Examiner must state that the applicant is required to delete the benefit claim or change the relationship (continuation or divisional application) to continuation-in-part because this application contains new matter).

AWS’s next complaint (at 17) is, allegedly, that the “complete absence of supporting disclosure in ThroughPuter’s parent applications confirms that ThroughPuter did not invent what it now claims to have invented.” As explained *infra*, this is an argument that the claims lack written description support under 35 U.S.C. § 112(a), which is not properly resolved on a motion to dismiss. This is not an argument under 35 U.S.C. § 101, which is the purported basis of AWS’s Motion. Regardless, AWS again overlooks the fact that the Examiner was required to—and presumptively did—review the specification to ensure that it included written description support for the claims as drafted. Specifically, the Examiner initially issued rejections under 35 U.S.C. § 112(b), (d), which ThroughPuter was able to overcome. Alciati Decl. Ex. 4 at 9 (’556 Patent File History, Amendment dated February 28, 2022); Alciati Decl., Ex. 5 at 4 (’934 Patent File History, Amendment dated May 12, 2022). But notably, the Examiner did not quibble with whether the claims found legally sufficient written description support in the specification. Indeed, by allowing the claims, the Examiner found that they did find sufficient written description support.

AWS’s final complaint is (at 12) that ThroughPuter somehow “concealed” the Amazon Patents from the USPTO. As an initial matter, it bears repeating that the Amazon Patents are not prior art to ThroughPuter’s patents—the converse is true. And regardless, ThroughPuter disclosed the Amazon technology AWS accuses ThroughPuter of copying—again despite the fact

ThroughPuter disclosed its inventions first—to the USPTO. Specifically, AWS accuses ThroughPuter of copying Amazon’s ’330 patent claim 1 in claim 1 of ThroughPuter’s ’556 patent and “concealing” that from the USPTO. During prosecution of the Patents-in-Suit, ThroughPuter disclosed the Amazon patent publication that led to the issuance of the ’330 patent to the USPTO. The examiner considered Amazon’s publication, and it is cited on the face of the Patents-in-Suit. *See* Dkt. 48-1, First Amended Complaint, Ex. 1 at 4 (referring to 2018/0089119 A1 3/2018 Khan et al); First Amended Complaint, Ex. 2 at 4 (same); First Amended Complaint, Ex. 3 at 4 (same).

Claim 1 included in the Amazon patent publication cited on the face of ThroughPuter’s Patents-in-Suit is identical to issued claim 1 of Amazon’s ’330 patent. *Compare* Alciati Decl., Ex. 10, claim 1 *with* Dkt. 48-1, Ex. 5, claim 1. In other words, the very claim language from Amazon’s ’330 patent, which Amazon claims ThroughPuter “concealed” from the USPTO, was in fact disclosed to the USPTO in a publication cited on the face of the Patents-in-Suit.⁷ ThroughPuter cannot reasonably be accused of concealing the existence of the Amazon Patents from the Patent Office when it cited one of the publications that led to the Amazon Patents to the Patent Office.

III. ARGUMENT

A. Numerous questions of fact must be resolved before the written description arguments raised in AWS’s Motion can be resolved.

AWS purports to bring a motion to dismiss under 35 U.S.C. § 101 arguing (at 17) that “[t]he complete absence of supporting disclosure in ThroughPuter’s parent applications confirms that ThroughPuter did not invent what it now claims to have invented—Amazon did—and the Court should dismiss this case under § 101.” But questions concerning whether the specification demonstrates adequate disclosure to demonstrate invention are governed by 35 U.S.C. § 112(a),

⁷ The disclosure of Amazon’s ’317 and ’995 patents is substantially similar to the disclosure of Amazon’s ’330 patent in relevant respect for present purposes.

not 35 U.S.C. § 101. Indeed, the R & R acknowledges “ThroughPuter’s point that Amazon is improperly asserting a claim of lack of inventorship instead of a disclosure claim” and found that “Amazon is asserting a disclosure claim, which is inappropriately addressed on a motion to dismiss.” Dkt. 43 at 19. AWS’s argument fails here for the same reason.

Indeed, AWS’s argument that the specification of the Patents-in-Suit fails to show that ThroughPuter invented what is claimed closely tracks the test for whether a claim complies with the written description support requirement of § 112(a): “[T]he test for sufficiency is whether the disclosure of the application relied upon reasonably conveys to those skilled in the art that *the inventor had possession of the claimed subject matter as of the filing date.*” *Ariad Pharms., Inc. v. Eli Lilly & Co.*, 598 F.3d 1336, 1351 (Fed. Cir. 2010). “[T]he test requires an objective inquiry into the four corners of the specification from the perspective of a person of ordinary skill in the art,” and “[b]ased on that inquiry, the specification must describe an invention understandable to that skilled artisan and *show that the inventor actually invented the invention claimed.*” *Id.* To be clear, these cases relate to the written description requirement under 35 U.S.C. § 112(a), not patent eligibility under 35 U.S.C. § 101, which is the purported subject of AWS’s Motion.

Nonetheless, AWS attempts to pitch its argument under § 101 because it is presumably well aware that whether a patent claim finds adequate written description support in the specification is a question of fact. *Id.* Accordingly, the Federal Circuit has explained that “determining whether a patent complies with the written description requirement will necessarily vary depending on the context.” *Id.* Indeed, “the level of detail required to satisfy the written description requirement varies depending on the nature and scope of the claims and on the complexity and predictability of the relevant technology.” *Id.* Given these factually-intensive inquiries, whether a claim complies with the written description requirement is simply not

amenable to resolution on a motion to dismiss. *See Blackbird Tech LLC v. Service Lighting and Electrical*, Civ. No. 15-53-RGA, 2015 WL 12868236, at *1 (D. Del. Dec. 1, 2015).

In its invalidity contentions, AWS argues that each and every limitation in ThroughPuter’s Patents-in-Suit lack written description support and relatedly that the asserted claims are not entitled to the priority date of ThroughPuter’s 2014 Application based on AWS’s argument that ThroughPuter’s 2014 Application lacks written description support for the claims. Alciati Decl., Ex. 8, AWS’s Supplemental Response to Rog. 9 at 35-70. In response to an AWS Interrogatory asking ThroughPuter to identify support for the claims of the ’556 and ’934 patents, ThroughPuter served voluminous and detailed claim charts identifying written description support for the asserted claims on an element-by-element basis tracing all the way back through ThroughPuter’s 2014 Application to a 2013 ThroughPuter provisional patent application. Alciati Decl. Ex. 9, TP Second Supplemental Response to Rog 4 at 13-138. Thus, the parties are already litigating the very issues raised by AWS’s motion to dismiss. AWS cannot circumvent the proper analysis of the written description requirement by attempting to twist § 101 in an entirely unprecedented way to argue for dismissal. Indeed, it is telling that AWS did not cite a single case finding a patent claim ineligible under § 101 for a specification’s failure to disclose that the inventor invented what is claimed—much less at the pleading stage.

The reason for AWS’s paucity of citation is that § 101 deals with eligibility, not patentability. The Federal Circuit has explained that it is “important to recognize that § 101, while far-reaching, only addresses patent *eligibility*, not overall *patentability*.” *CLS Bank Intern. v. Alice Corp. Pty. Ltd.*, 717 F.3d 1269, 1276 (Fed. Cir. 2013), *aff’d* 573 U.S. 208 (2014) (emphases in original). “The eligibility inquiry is not an inquiry into obviousness, novelty, enablement, or any other patent law concept.” *Id.* at 1303.

The text of Section 101 itself makes this clear:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, *subject to the conditions and requirements of this title*.

Thus, Section 101 makes certain types of inventions or discoveries eligible for patenting, so long as the invention or discovery meets the conditions and requirements to patentability set forth in Chapter 35 of the United States Code, including 35 U.S.C. §§ 102, 103, and 112.

To that end, “[t]he Supreme Court repeatedly has cautioned against conflating the analysis of the conditions of patentability in the Patent Act with inquiries into patent eligibility.” *Id.* at 1303. Yet that is exactly what AWS asks the Court to do. The question AWS presents concerning whether the disclosure of ThroughPuter’s specification discloses that ThroughPuter invented what is claimed is an inquiry into whether the claims find adequate written description in the specification under 35 U.S.C. §112(a). In fact, one of the cases cited by AWS actually highlights that AWS’s invocation of § 101 is entirely misplaced.

AWS cites (at 14) *Application of Sarkar*, 588 F.2d 1330, 1333 (C.C.P.A. 1978) for the proposition that the words “‘Whoever invents’ in § 101 are used in the sense of ‘whoever originates.’” But that case actually demonstrates that § 101 is not directed to inventorship.⁸ Just two sentences before AWS’s quoted sentence, the Court explained: “A § 101 determination is concerned (setting aside utility) *only* with whether the claimed invention is within the *Categories* there broadly enumerated.” *Id.* AWS’s Motion does not raise an eligibility issue concerning

⁸ In a footnote, AWS cites (at 15, n. 10) to a journal article suggesting that, while the AIA eliminated 35 U.S.C. § 102(f), 35 U.S.C. § 101 embodies the derivation provisions of § 102(f). Even if that were correct, derivation is not resolvable here because it is a question of fact and requires “the party asserting invalidity [to] prove both prior conception of the invention by another and communication of that conception to the patentee by clear and convincing evidence.” *Eaton Corp. v. Rockwell Int’l Corp.*, 323 F.3d 1332, 1344 (Fed. Cir. 2003).

Section 101’s enumerated categories of eligible subject matter. Thus, AWS’s own cited authority demonstrates that AWS’s invocation of Section 101 is inapt in this context.

B. Even if questions of inventorship were within the scope of 35 U.S.C. § 101, such questions are not resolvable at the motion to dismiss stage.

As explained *supra*, Section 101 does not implicate an analysis of inventorship; however, even if it did, such questions are not appropriately resolved in the context of a motion to dismiss. “The ‘inventor,’ in patent law, is the person or persons who conceived the patented invention.” *C.R. Bard, Inc. v. M3 Sys., Inc.*, 157 F.3d 1340, 1352 (Fed. Cir. 1998). Further, “[t]here is a presumption that the inventors named on an issued patent are correct, so misjoinder of inventors must be proven by clear and convincing evidence.” *Fina Oil and Chemical Co. v. Ewen*, 123 F.3d 1466, 1472 (Fed. Cir. 1997). The Federal Circuit has explained that “[c]onception is the touchstone to determining inventorship.” *Id.* “Thus facts relevant to inventorship are those showing the conception of the invention[.]” *C.R. Bard, Inc.*, 157 F.3d at 1352. As such, even if the so-called “inventorship” issue raised by AWS turned on whether Mr. Sandstrom invented what is claimed, that issue raises questions of fact concerning conception.

Here, however, conception was settled when ThroughPuter filed its patent applications that matured into the Patents-in-Suit because the “filing of a patent application serves as conception and constructive reduction to practice of the subject matter described in the application.” *Hyatt v. Boone*, 146 F.3d 1348, 1352 (Fed. Cir. 1998). Nonetheless, and to the extent AWS intends to challenge conception, the Court does not have an adequate record before it to decide that issue, which may involve claim construction, discovery, and expert testimony.

AWS’s Motion also fails because it is entirely plausible that Mr. Sandstrom invented what is claimed—consistent with the presumption of validity enjoyed by the Patents-in-Suit. As AWS acknowledges, ThroughPuter’s complaint alleges that Mark Sandstrom is “the sole and true

inventor” of each of the asserted patents. Dkt. 48, ¶¶6, 68, 112. Nonetheless, AWS argues (at 18) that this is a legal conclusion not supported by any plausible factual allegations. In making this argument, AWS overlooks the presumption of validity and the fact that the complaint is replete with facts demonstrating that Mr. Sandstrom certainly possesses a level of skill in the cloud computing field that would allow him to have invented what is claimed.

As explained *supra* at Section II.A., Mr. Sandstrom published and spoke frequently on the topic of cloud computing and the use of reconfigurable FPGA processors to advance the cloud computing field. Dkt. 48, ¶¶38-42. That an individual of such accomplishments invented what is claimed is entirely plausible.

In addition, ThroughPuter’s First Amended Complaint alleges:

To address these problems, ThroughPuter developed hardware implemented dynamic resource management functionality including a scheduler, placer, inter-task communications and input/output system for use with multicore processor arrays dynamically shared among multiple concurrent applications, preferably to be deployed on FPGA processors. To that end, in this technology approach, the manycore processor array involves a fabric of reconfigurable cores that can be on-demand programmed to supply the needed mix or match of hardware accelerators. ThroughPuter’s technology provided a cloud computing solution that enables accelerated processing speeds across multiple application programs while at the same time optimizing processing resource utilization.

Dkt. 48, ¶36.

The R & R cites this paragraph to find that “ThroughPuter has adequately pleaded its claims sufficient to survive a Rule 12(b)(6) motion to dismiss.” Dkt. 43 at 22, 12. AWS’s argument fails.

C. ThroughPuter complied with all applicable USPTO requirements during prosecution of the Patents-in-Suit, and any argument by AWS to the contrary is not resolvable on a motion to dismiss.

AWS’s Motion is littered with accusations of misconduct levied against ThroughPuter in an attempt to smear ThroughPuter with inequitable conduct allegations, which AWS itself acknowledges are not properly before the Court on its motion. While it is clear that AWS does

not like that ThroughPuter obtained claims—with a much earlier priority date⁹—that are substantially identical in scope to the Amazon Patents practiced by AWS, that does not mean that ThroughPuter failed to comply with applicable USPTO procedure. Quite to the contrary, as explained *supra* at Section II.B., ThroughPuter dutifully complied with USPTO requirements during prosecution of the Patents-in-Suit. In so doing, ThroughPuter was well within its rights to seek continuation patents claiming its disclosed inventions that cover AWS’s accused product.¹⁰

Moreover, the Federal Circuit has long condoned the use of continuation patents to specifically target a competitor as the technological field of the invention develops. To that end, the Federal Circuit has explained:

[T]here is nothing improper, illegal or inequitable in filing a patent application for the purpose of obtaining a right to exclude a known competitor’s product from the market, nor is it in any manner improper to amend or insert claims intended to cover a competitor’s product the applicant’s attorney has learned about during the prosecution of a patent application. Any such amendment or insertion must comply with all statutes and regulations, of course, but, if it does, its genesis in the marketplace is simply irrelevant and cannot of itself evidence deceitful intent.

Kingsdown Med. Consultants, Ltd. v. Hollister Inc., 863 F.2d 867, 874 (Fed. Cir. 1988). Here, because ThroughPuter complied with applicable statutes and regulations, the “genesis” of ThroughPuter’s claim is “simply irrelevant” to AWS’s motion (and generally).

Consistent with Federal Circuit precedent, ThroughPuter’s continuation applications were filed to cover AWS’s accused product and to ensure that ThroughPuter protected the space it is

⁹ While AWS clearly disputes this, “determination [of] whether a priority document contains sufficient disclosure to comply with the written description aspect of 35 U.S.C. § 112, first paragraph, is a question of fact,” which is not resolvable at the motion to dismiss stage. *Bradford Co. v. Conteyor N. Am., Inc.*, 603 F.3d 1262, 1268 (Fed. Cir. 2010).

¹⁰ AWS’s reliance (at 17-19) on *Leviton Mfg. Co. v. Universal Sec. Instruments, Inc.*, 606 F.3d 1353 (Fed. Cir. 2010) is misplaced as explained in the R & R (at 20-21), which AWS notably fails to address.

entitled to protect. In doing so, ThroughPuter focused on the way Amazon claimed the accused product in patent applications. And so long as ThroughPuter's patents complied with the conditions for patentability—including the written description requirement—ThroughPuter was free to claim its invention as it saw fit. Indeed, AWS's law firm published a client alert entitled "Strategic Use of Continuing Applications," extolling the benefits of pursuing continuation applications specifically for the purpose of monitoring changes and developments in the marketplace. *See* Alciati Decl., Ex. 6. Despite the provocative and incendiary language used throughout AWS's Motion, ThroughPuter did nothing wrong, which issue is not properly before the Court in any event. *See* Dkt. 43 at 16. ("The undersigned declines to import this materiality analysis into the context of a motion to dismiss, effectively invalidating ThroughPuter's Patents-in-Suit, based on the pleadings.").

D. In the event the Court finds a pleading deficiency, ThroughPuter requests leave to amend.

As explained herein, AWS's Motion falls well short of identifying a pleading deficiency in ThroughPuter's infringement case. Nonetheless, in the event the Court finds that more is required, ThroughPuter respectfully requests leave to amend its pleading. *See Griggs v. Hinds Junior College*, 563 F.2d 179, 180 (5th Cir. 1977). For example, ThroughPuter could incorporate its discovery responses identifying written description support in its original patent applications to address AWS's incorrect argument that ThroughPuter was required to demonstrate written description support in its complaint. *See* Alciati Decl., Ex. 9.

IV. CONCLUSION

For the foregoing reasons, ThroughPuter respectfully submits that the Court should deny AWS's Motion in its entirety.

Dated: September 22, 2023

Respectfully Submitted,

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CERTIFICATE OF SERVICE

The undersigned certifies that on September 22, 2023, all counsel of record who are deemed to have consented to electronic service are being served with a copy of this document through the Court's CM/ECF system.

/s/ W. Cook Alciati